

From boatanchors@theporch.com Thu Oct 26 15:46:00 1995  
From: "Robert M. Bratcher Jr." <bratcher@krypton.netropolis.net>  
Subject: 1625 linier?  
Message-ID: <199510260857.IAA20064@krypton.netropolis.net>

>In my quest for building a transmitter and receiver I naturally look at and  
>continue to look at all my old magazines for ideas. The transmitter project  
>is well under way but I couldn't help but notice a picture in the QST "Strays"  
>for November 1969. It is a "low cost linear amplifier" using thirty (30)  
>1625 tubes in parallel. They run AB1 with a combined plate impedance of 75  
>ohms, uses no impedance matching circuit but does use some type of DC blocking  
>circuit. The pix comments say it makes it unnecessary to have any tuning  
>control (instant QSY I guess). Oh, keeping in spirit with the use of many  
>tubes the power supply consists of six (6) TV transformers all in parallel of  
>course.

>

>HMMMMMM.....

>

WOW! was that a full KW? Did QST ever publish the circuit? Kinda reminds me  
of my first amplifier. 10 6DQ6's in paralell ran for quite a while. However  
I had to tune mine like most liniers. Not bad for a high school kid in 1976  
having to scrounge for parts.

Robert M. Bratcher Jr.  
E-mail to:  
bratcher@netropolis.net  
Beam me up Scotty!  
(I'm a real Star Trek fan)  
AND one heck of an old radio nut.  
Just love those tube type Boatanchors!

From boatanchors@theporch.com Thu Oct 26 20:55:00 1995  
From: Steve Ellington <n4lq@iglou.com>  
Subject: Re: 1625 linier?  
Message-ID: <Pine.SOL.3.91.951026120003.29669C-100000@iglou>

> >is well under way but I couldn't help but notice a picture in the QST "Strays"  
> >for November 1969. It is a "low cost linear amplifier" using thirty (30)  
> >1625 tubes in parallel. They run AB1 with a combined plate impedance of 75  
> >ohms, uses no impedance matching circuit but does use some type of DC blocking  
> >circuit. The pix comments say it makes it unnecessary to have any tuning  
> >control (instant QSY I guess). Oh, keeping in spirit with the use of many  
> >tubes the power supply consists of six (6) TV transformers all in parallel of  
> >course.

I'll look that one up. That may be the one that required you to remove

the base of the 1625 and rearrange some of the leads. What a mess!

Steve Ellington N4LQ@IGLOU.COM Louisville, Ky

From boatanchors@theporch.com Thu Oct 26 20:55:00 1995

From: Nick England <nick@cs.unc.edu>

Subject: 2m AM Report and Summary

Message-ID: <199510261618.MAA13574@altair.cs.unc.edu>

Please don't re-open the discussion here. We have had a thorough airing of this issue here and on the "vhf" mailing list and this is a summary of those discussions. Please send comments to me directly rather than to the whole boatanchors list - thanks for your consideration and thanks to all who contributed to the discussion. 73.

Nick KD4CPL  
Chapel Hill, NC  
nick@cs.unc.edu

p.s. feel free to pass this on to other interested parties.

=====

This discussion got started when a group of us here in North Carolina started talking about firing up some of the 2m AM rigs we have in our collections of vintage gear. I brought it up on the "boatanchors" list to find out if there is a national "AM calling freq" on 2m (like 50.4 on 6m).

After some discussion it was clear there was no easy answer - so we turned to the people active on VHF to see what their experience, concerns, and opinions were - and how we might all be good neighbors.

I have gotten many courteous and thoughtful responses and only one "No AM Anywhere" reply. In general the VHF community was supportive of finding some place for AM operations on 2m.

Here is a summary of the situation as best as I can tell:

- 1) The ARRL and regional bandplans don't mention any space for 2m AM
- 2) 144.4 was used a lot in the past and is still used in many parts of the country for 2m AM with no problems. The bandplans now designate 144.3 - 144.5 as a New proposed OSCAR Sub-band (some plans say shared Simplex and New OSCAR).

2) 145.35 was also a common 2m AM freq in the old days.  
Bandplans now designate 145.2 - 145.5 for repeater outputs

6) Here are other suggestions I received:

find an unused FM simplex freq above 146 and use it  
(problem - crystal control of most AM rigs makes it  
very hard to move around)  
use the "Miscellaneous and experimental" sub-band at 145.5-145.8  
(problem - allocated to packet in most places)

7) Here are some concerns I heard:

oscillating regen receivers (like the Heath Twoer) cause problems  
to nearby frequencies  
"AM is just too wide and full of side products" (from the  
No AM Anywhere guy) - several people pointed out that  
vintage AM rigs are actually much cleaner than  
newer synthesized gear.

Based on the input I have received, I am going to report to our local group and to the national "boatanchors" group the following:

- 1) 144.4 looks like a reasonable choice for a 2m AM frequency - it has long been used for 2m AM and is still actively used in many locations. Definitely avoid the 144.0 - 144.2 weak signal area.
- 2) Avoid regen receivers like the Twoer because of potential interference to weak signal operations in 144.0 - 144.2
- 3) Check your xmtr with a scope to avoid overmodulation splatter.
- 4) Check with your local weak signal and satellite operators to detect and minimize any problems. Be a good neighbor.

---

From boatanchors@theporch.com Thu Oct 26 15:46:00 1995  
From: Andy Howard WA4KCY <102452.362@compuserve.com>  
Subject: RE: AM International  
Message-ID: <951026053522\_102452.362\_DHT20-1@CompuServe.COM>

Support our right to operate vintage equipment (AM) on the ham bands. Join AM International. Send \$2.00 to AMI, Box 1500 Merimack, NH 03054 and receive a nice certificate suitable for framing.

Andy, WA4KCY  
SE Director, AMI

From boatanchors@theporch.com Thu Oct 26 20:55:00 1995  
From: "Robert M. Bratcher Jr." <bratcher@krypton.netropolis.net>  
Subject: AM Press Exchange  
Message-ID: <199510261159.LAA00762@krypton.netropolis.net>

Can someone give me subscription information on this magazine? I need price plus the mail address for a sample copy!

Robert M. Bratcher Jr.  
E-mail to:  
bratcher@netropolis.net  
Beam me up Scotty!  
(I'm a real Star Trek fan)  
AND one heck of an old radio nut.  
Just love those tube type Boatanchors!

From boatanchors@theporch.com Thu Oct 26 15:46:00 1995  
From: w7ni@teleport.com (Stan Griffiths)  
Subject: Auction Find  
Message-ID: <199510260723.AAA17468@desiree.teleport.com>

>To: KE8NEfix@aol.com  
>From: w7ni@teleport.com (Stan Griffiths)  
>Subject: Auction Find  
>Cc: boatanchors@theporch.com  
>  
>>To: boatanchors@theporch.com  
>>From: w7ni@teleport.com (Stan Griffiths)  
>>Subject: Auction Find  
>>  
>>I bought a bunch of Tektronix P6105 scope probes at an auction. Most of them had broken tips, but they are replaceable if you know how. (I know how!) So now I have several for sale.  
>>  
>>Tektronix P6105 Probe  
>>  
>>Connector type = BNC with readout (you can still use them on scopes without readout and you can use a UHF/BNC adapter)  
>>Bandwidth = 100MHz  
>>Vintage: Last appeared in 1984 Tek Catalog (\$110 each). Replaced by P6105A still in 1995 Tek Catalog (\$175 each).  
>>Attenuation = X10  
>>Cable Length = 2 meters  
>>Scope input pf = 15 to 47

>>Supplied accessories: Retractable hook tip. Ground lead with alligator clip.  
>>No manual or instruction sheet.  
>>  
>>I personally checked each of these probes for accurate X10 attenuation,  
intermittant cables, and high frequency response.  
>>  
>>These are great general purpose scope probes that can be used on most  
scopes except the very high frequency ones above 150 MHz or so. If you need  
250-300 MHz probes, stand by for further announcements on this frequency. I  
got a few of them, too, but they are not checked out yet.  
>>  
>>I want \$25 each for these probes but I am only going to hold a narrow  
window open since I have no idea what the demand will be. Perhaps large.  
This offer expires October 15.[offer reopened] If I still have some left, I  
will re-open the offer. If I get more demand than I have probes, I will  
throw names in a hat and draw them out until all probes are gone. I will  
let you know.  
>>  
>>BTW these probes are too new to be considered BAs, I know, but since good  
scope probes seem to be scarce on the used market and a lot of you guys use  
scopes in your shops to restore BAs, I wanted you to have the first shot at  
getting them. Whatever I have left are going to a fealmarket with me in two  
weeks.  
>>  
>>Stan W7NI@teleport.com  
>>  
>>This is a copy of the original post. I have since been asked what voltage  
the probes will take and the answer is:  
>  
>Maximum voltage = 500 volts DC + peak AC to 1.7 MHz derated to 30 volts at  
50 MHz.  
>  
>Regarding replacement cables. Sometimes Tek sells them (depends on how old  
the probes are) but they charge so much you can probably buy a good used  
probe cheaper. For example, the P6105 probes I am selling for \$25 cost  
about \$110 new in 1985. The present replacement probe, P6105A, sells for  
about \$175. Tek sell three major replacement parts for their "Modular  
Probe" series: the compensation box with connector, the cable, and the tip  
with attenuator. Each part costs about \$60 or nobody would buy a whole  
probe. They would buy parts and assemble their own. If the probes are  
older than about 10 years, there is a good chance you can't get parts from  
Tek for any price and nobody else makes parts for them. The cable they use  
is Tek-made coax with a very special fine steel wire center conductor with  
distributed resistance that you cannot solder to. They crimp to it. Probe  
cables that open or become intermittent are virtually not repairable.  
(Nothing is impossible, but this is close.) There are probably 100  
different probe cables and they are not mechanically or electrically  
interchangeable. You have to have the right cable with the right

compensation box with the right tip and attenuator to get a good probe. A good probe is one that faithfully reproduces the signal without distorting it as it attenuates it and brings it to the scope input connector. Even if you can manage to mechanically connect all the parts, if they ain't the exact right parts, you probably won't have a good probe.

>

>If you know exactly what cable you are looking for and exactly how to know when you have found it, you might get lucky and find some NOS (new, old stock) declared surplus from an electronics company that is updating their probes and getting rid of the old ones and their stock of repair parts.

>

>What I do is buy up broken probes and hope I can get enough good parts to put together some good ones. I bought about 60 broken P6105 probes at an auction and made about 40 good ones out of them.

>

>To know if a probe is good or not requires putting a known good, fast rise, fairly high amplitude squarewave into it and observing the result on a fast scope. So you have to have some pretty good equipment to do it. Probes are "compensated attenuators" which means they have to be adjusted to divide by ten equally at all frequencies. Again, you do this by connecting it to a scope, give it a good fast squarewave, and adjust it so it looks square. I really don't know how you properly compensate one for a signal generator or a counter. If you knew the input capacitance of the counter, for example, you could adjust a probe on a scope with the same input capacitance and then transfer it from the scope to the counter. You would be close, but not perfect.

>

>Regarding all the little accessories that go with probes, the list is huge. The best thing to do is for you to tell me the model numbers of the probes you have and I will find them in an old Tek catalog and copy the pages that talk about them including their accessories. I may have some of what you want in my extensive "Junque Boxe". Probe models usually start with "P" and are followed by four digits and sometimes a letter after that.

>

>I hope this helps some. I think I could write a book on probes. Come to think of it, Tek has already written a book on probes called "Probe Measurements", published in about 1971, out of print, and won't let anybody else reprint it. Thanks a lot Tek. (Grumble, grumble.)

>

>This is probably more than you ever wanted to know about Tek probes . . .

>

>Stan W7NI@teleport.com

>

From boatanchors@theporch.com Thu Oct 26 15:46:00 1995

From: Andy Howard WA4KCY <102452.362@compuserve.com>

Subject: RE: BC-611 Wanted

Message-ID: <951026043028\_102452.362\_DHT55-1@CompuServe.COM>

BC-611 Wanted for WW2 collection of militaria. E-mail or 770-832-0202.  
Andy Howard, WA4KCY

From boatanchors@theporch.com Thu Oct 26 15:46:00 1995  
From: morriso@vifp.monash.edu.au (Morris Odell)  
Subject: Re: Big dummy load  
Message-ID: <199510260815.SAA23295@brain.vifp.monash.edu.au>

Hi,

<snip>  
>With reference to the Emergency Repair thread and the use of a foot-long  
>hose full of salt water to make a resistor, has anybody tried to make a  
>dummy load that way?  
<snip>

One of the things I've tried (with varying success) is to use an element out of a cooking stove. The element was a coil consisting of a metallic outer tube filled with ceramic insulation and a central conductor of resistance wire. It was about 3 feet long when uncoiled and was supposed to dissipate 1200 watts when connected to the 230 volt mains here. This means it has a resistance of about 44 ohms. I shorted one end of the core to the sheath and put a UHF connector at the other end, thus producing a lossy 44 ohm length of coax.

It didn't work so bad, although I never put 1200 watts of RF into it!

Morris VK3DOC  
Melbourne Australia  
morriso@vifp.monash.edu.au

From boatanchors@theporch.com Thu Oct 26 15:46:00 1995  
From: morriso@vifp.monash.edu.au (Morris Odell)  
Subject: Re: Blooming Tektronix Scopes  
Message-ID: <199510260815.SAA23292@brain.vifp.monash.edu.au>

>Oh no, I don't want to hear this Stan! Arrgh...  
>  
>>If it is the 547, you may be having a problem with the high voltage  
>>transformer

You guys don't know how lucky you are having easy access to such lovely

'scopes not to mention the sources of cheap parts etc. It's very different here. I really enjoy Hank and Stan's comments as I love these instruments but have only used the good stuff a long time ago and haven't been able to find much of it for my collection.

The only Tek scope I have been able to own so far is a 502A which is a beautiful instrument although slow. I had similar blooming troubles with mine and found that one of the terminals on the open frame type HV transformer was arcing and the insulation had become carbonized. I cleaned it out carefully with a dental scraper and coated it with silicone insulating compound and it's been OK for a year or so. (phew)

I'd like to ask Stan or Hank whether they think it's a good idea to replace the HV rectifiers with appropriate silicon diodes to reduce the load on the supply. Would this prolong the life of the oscillator tube?

Thanks for lots of enjoyable and useful information

73

Morris VK3DOC  
morriso@vifp.monash.edu.au

From boatanchors@theporch.com Thu Oct 26 20:55:00 1995

From: Henry van Cleef <vancleef@bga.com>  
Subject: Re: Blooming Tektronix Scopes  
Message-ID: <199510261803.NAA12114@zoom.bga.com>

As Morris Odell said

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> mine and found that one of the terminals on the open frame type HV  
> transformer was arcing and the insulation had become carbonized. I cleaned  
> it out carefully with a dental scraper and coated it with silicone  
> insulating compound and it's been OK for a year or so. (phew)  
Sounds like a good fix.

>  
> I'd like to ask Stan or Hank whether they think it's a good idea to replace  
> the HV rectifiers with appropriate silicon diodes to reduce the load on the  
> supply. Would this prolong the life of the oscillator tube?  
>

I did a quick study of the power used in the 10KV supplies. High voltage to the CRT is about a half watt. Power to heat 5 5642's is about a watt and a quarter. The 6AU5 used in this circuit is rated at 10 watts plate dissipation. That's way above the power levels needed

to drive the circuit as long as it is in good condition. A quick (and very cursory) look at the regulator circuit indicates that it won't pull the 6AU5 screen down far enough to reduce power much below a watt of output in a supply in good condition, so it's likely you would have to load a couple of those filament windings enough to get around 500 ma. of heater current in the load, if you use silicon rectifiers.

The Newark catalog lists Fagor HV12R diodes with 12KV PIV, and a 350 ma. current rating. That current is an order of magnitude higher than the Tek supplies need. PIV in the tripler section does need to be above 9KV---the 5642's are rated at 10KV.

As I recall, the 502A uses a 2KV tube, so does not have a tripler, and has a smaller oscillator tube. I would pick diodes with a PIV of at least 3X the power supply voltage, to give some headroom for operation with the regulator inoperative.

Tek did list silicon replacements for the 5642. I don't know what mod information they published for installing them in various models. If you put silicon diodes in a 502A, you'd have too look at the voltages in the regulator circuit to make sure that it's operating within its range----I would not try to pull a 12AU7 plate much below 40 volts. In a plain 545, which I did measure, the maximum screen voltage on the 6AU5, with the 12AU7 removed, is about 145, and the circuit regulates with 80-90 volts. Tek being Tek, the 502A probably has similar proportioning.

That's sort of a long and convoluted answer, where I could have said, "if it's working, don't fix it." Most of the Tek scopes I've seen recently had the original HVPS oscillator tubes in them, still churning away, even if the scope had been retubed elsewhere and had high time. A good many Tek scopes ran 8 hours a day every working day for ten years or more, so some of them have some pretty serious operating time. I would suspect that the average boatanchors mail list reader might put 100-200 hours a year on a Tek scope and call that "serious use."

One other reason for giving a long answer is to point out that a good many "modifications" that sound like "good ideas" turn out to be very bad ones for reasons that aren't immediately obvious. In most cases you'll find that you are proposing to rethink the decisions made by some very savvy engineers, who had a feel for every circuit in the box, not just the one you are looking at. They also had experience with the boxes in production quantities, and the warts on the components they were using that don't show up in the parts list. You want to have in mind what it would be like to justify your proposed modification in a design review with the original designers, beginning with the chief engineer. I think that a prime example of mods that go flat are the various "fixes" that sound like good ideas for Hallicrafters stuff.

You always want to have in mind that Bill Halligan paid his engineers to be very thorough and very cost-conscious. Some cost-related modifications by an owner are fairly safe---better capacitors, higher wattage and tighter tolerance resistors, fuses, 3-wire power cords, some 22, 33, or 47 ohm parasitic protection. But when it comes to something like substituting a 6SG7 or 6AB7 for a 6SK7 to "get more gain," watch out. First of all, you are looking at the possibility of adding a few parasitics to debug, and secondly, you are assuming that the AVC loop will handle that extra gain. Also, what are you amplifying, signal, or noise. The RME-45 I rebuilt had a series noise limiter installed in it by an owner. That circuit was a lift out of the 1948 ARRL handbook, and began by changing the load on the last IF from 100K to 500K, something the "modifier" didn't consider in sufficient detail to realize that it made a nice receiver into a dog. The solder blobs in the set made it clear that it was all downhill from there.

I've gone into this a bit because of the recurrent threads on modification, and my clear statement that "I modify." A lot of readers on this list are allergic to modifications, not because of supposed dollar value that some pecksniff "collector" won't like, but because too many of them are poorly engineered.

Mods to Tek scopes that didn't show up in Tek documents are a risky area. Once again, consider who you are second-guessing. Tek engineers went for performance and reliability, , and supported their boxes through re-engineering by competent engineers while in production, and field retrofits. There is a high probability that if a mod to a Tek scope is a good idea, it's already in the documentation chain somewhere.

--

\*\*\*\*\*  
Hank van Cleef vancleef@bga.com vancleef@tmn.com  
\*\*\*\*\*

From boatanchors@theporch.com Thu Oct 26 20:55:00 1995  
From: bill.sorsby@dlepl.itg.ti.com (Bill Sorsby)  
Subject: Re: Blooming Tektronix Scopes  
Message-ID: <199510262048.PAA10224@dlepl.itg.ti.com>

>>  
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>> the HV rectifiers with appropriate silicon diodes to reduce the load on the  
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>area. Once again, consider who you are second-guessing. Tek engineers  
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>through re-engineering by competent engineers while in production, and  
>field retrofits. There is a high probability that if a mod to a Tek  
>scope is a good idea, it's already in the documentation chain  
>somewhere.

>

Seems to me I've got little to lose by trying this Hank. Not that I care  
much about the 6AU4's - I've got a ton of them. But since you say the  
largest load on the H.V. transformer is the 5642 filaments then removing  
this load could very well keep the transformer from going into saturation  
and hence prevent the Blooming and Fading.

By your and Stan's accounts Tek slipped up in this area and lots of these  
H.V. transformers aren't up to the task. So what's to lose by trying a  
little redesign in this area using solid-state rectifiers? Beats rewinding  
the transformer and having one which might or might not last for very long.

I'll look over the circuit and let you and Stan know my proposed changes.

Regards,  
Bill, N5BU

From boatanchors@theporch.com Thu Oct 26 15:46:00 1995  
From: "Raymond Perrin (613) 736-2234" <ray@pwgsc.gc.ca>

Subject: Collins Capacitor  
Message-ID: <950ct26.100748edt.29733@gorgon.pwgsc.gc.ca>

Does anyone know a source for the triple section can-type electrolytic capacitor (C106) in the Collins KWM-2? It is a Sprague type that is no longer available. The values are 30, 20,15 uf all at 350 volts.

A suitable replacement is also of interest keeping in mind that the original is 1 inch in diameter and the can is about 2.5 inches high. A replacepent can't be much taller because height is constrained by the bracket holding the VOX time constant control.

Many thanks

Ray Perrin VE3FN  
613-736-2234

From boatanchors@theporch.com Thu Oct 26 15:46:00 1995  
From: Harris Boldt Edelman <hbe@red-eft.la.ca.us>  
Subject: Re: DX-100 transformers  
Message-ID: <9510260337.AA06883@red-eft.la.ca.us>

>Hey Bobbie and Guys,  
> (Had to do that, don't ask why... but hey guys just wasn't right.)

Don't forget Laura.

-Harris. KB60WB <hbe@red-eft.la.ca.us>

From boatanchors@theporch.com Thu Oct 26 20:55:00 1995  
From: "Terry O'Laughlin, RM:7135, #:6-6667" <OLLAUGHLIN@villas.uwex.edu>  
Subject: For sale: Lavoie scope  
Message-ID: <MAILQUEUE-101.951026150855.320@villas.uwex.edu>

I have a Lavoie scope that I picked up simply because it is almost mint. It is not a knockoff of a Tek, but a military unit. The scope has a weird display/graticule. The graticule is at a right angle below the tube face and is reflected in front of the tube on a angled glass plate. I have two original manuals for it. I have no idea what it is worth, but it sure is pretty to look at. If anyone is interested, please contact me directly. I will sell it very reasonably, especially if I don't have to ship it. It's almost too nice to trust to UPS.

From boatanchors@theporch.com Thu Oct 26 15:46:00 1995  
From: Conard Murray <cfm@tnitech.edu>  
Subject: Glowbugs List ready to go  
Message-ID: <01HWW21MQ4V6HSJ5TX@tnitech.edu>

-- [ From: Conard Murray \* EMC.Ver #2.5.02 ] --

Hello all,

I have volunteered to take the glowbug list, so lets get this thing rolling! I am new to this list administration stuff, so take it easy on me at first! This is supposed to be sort of a intersection of both the qrp-1 and boatanchors groups. What I would like to see is a group dedicated to building with firebottles..not necessarily qrp or qro, just tubes. Stories, tips, pointers, circuits, parts wanted/for sale and project progress reports and reviews are encouraged.

So, get to it....let's see some good stuff... we have the Hartley Rallye coming up as soon as a date is set.

72/73 all, de Conard WS4S  
cfm@tnitech.edu  
ws4s@midtenn.net

From boatanchors@theporch.com Thu Oct 26 15:46:00 1995  
From: "Integration Area" <integrat@usr.com>  
Subject: Goofy 807s  
Message-ID: <9509268147.AA814725304@robogate.usr.com>

I was going thru some boxes of tubes and came across an odd RCA 807. It looks like any other 807 with a non-ceramic base, except for the plate cap. It is vertically ribbed, much like a bit of pasta. I have seen some other tubes with this feature, but never an 807. What is the point? Heat dissipation? Teeth for the plate connector to grab on to? Weird war surplus caps RCA found and decided to use? Do any tube collectors want this thing?

William Donzelli  
integrat@usr.com

From boatanchors@theporch.com Thu Oct 26 20:55:00 1995  
From: aa4rm%amos.UUCP@mathcs.emory.edu (Marty)  
Subject: Hallicrafters HT1E "HandPhone"  
Message-ID: <9510261840.AA12828@amos.YP.mystnite>

Oh BA gang, take note.

This a 1964+/- "all transistor" 30-40mhz am phone (pp transistors cum mod. xfmr) biggish handy talky. It's 1 channel xtal control and is roughly the size of a BC611. The RX is about 2 uv for 20db quiet worth of sensitivity & the TX seems to put .25w into 50 ohms (probably wrong load). It has a squelch and is uggly.

Has anyone else seen one? I hear a "laundered" model was used by Montangard tribesmen in Cambodia.

Chuck Dachis knows the animal and chuckles about Hallicrafters' last days customers and that Halli started using their designators all over again (HT1 from 1939, HT1 from 1964 - what goes around comes around)

Just Curious,

Marty - AA4RM

From boatanchors@theporch.com Thu Oct 26 20:55:00 1995

From: KC5IJD@aol.com

Subject: Re: Hallicrafters HT1E "HandPhone"

Message-ID: <951026150104\_55085883@mail04.mail.aol.com>

>Has anyone else seen one? I hear a "laundered" model was used by Montangard  
>tribesmen in Cambodia.

Marty,

Yes, I am quite familar with these units - even have a copy of a manual for the HT-1.

I have a new in the box HT-2A which is similar to the HT-1 but has added to it a second band (one channel in the VHF aircraft spectrum). They have a loooong antenna.

These units are very similiar to the FM-1 made by Motorola (have one of these too - but unfortunately have no manual for it).

They were designed from what I know for use by quasi-military units like the Montangard  
tribesmen in Cambodia.

73

Joseph W Pinner  
Lafayette, LA

KC5IJD  
EMail: kc5ijd@aol.com

From boatanchors@theporch.com Thu Oct 26 20:55:00 1995  
From: w0ogh@ix.netcom.com (Larry Godek)  
Subject: Halliscratchers  
Message-ID: <199510262014.NAA09062@ix5.ix.netcom.com>

Reading my December 1948 CQ mag last night I saw an ad for a Halicrafters S-51. Kinda looked like a partial S40. Anybody got one or seen one? They advertised it as the radio for the "aviation minded listener". Different range of frequencies covered.

Larry WOOGH@ix.netcom.com

From boatanchors@theporch.com Thu Oct 26 15:46:00 1995  
From: Conard Murray <cfm@tnitech.edu>  
Subject: How to sub to glowbugs  
Message-ID: <01HWW3SI10R6HSJ7RA@tnitech.edu>

-- [ From: Conard Murray \* EMC.Ver #2.5.02 ] --

Hello All again!  
I must apologize for not telling you how to subscribe to the new glowbug list!  
Send an E-Mail message to listproc@theporch.com  
leave the subject line blank  
on the first line of the message body type  
subscribe glowbugs (yourname) (yourcall)  
that should do it.  
Thanks and see you on the list!  
73 de Conard WS4S

From boatanchors@theporch.com Thu Oct 26 20:55:00 1995  
From: aa4rm%amos.UUCP@mathcs.emory.edu (Marty)  
Subject: Re: Info on big toob  
Message-ID: <9510261944.AA13014@amos.YP.mystnite>

The AWA journal OTB says this was 4 ea 350As (sorta 6L6-ish) in parallel in one envelope.

Hollow state audio doodads take note!

It was used as a pulse modulator (electronic switch) in some Navy radar, hence all the glass between plate and base. And on the base, good luck on finding one!

I gave a brand new one away as a door prize at our club meeting about 1980. The winner thought he was getting an Icom & wilted at the box contents.

Right now I'd rather have the tube than the Icom!

I can supply more if you wish

Marty

From boatanchors@theporch.com Thu Oct 26 20:55:00 1995  
From: pbock@melpar.esys.com (Paul H. Bock)  
Subject: Items still FS  
Message-ID: <9510261955.AA14598@syseng1.se.melpar.esys.com>

FOR SALE            FOR SALE            FOR SALE

Drake 2-NT 80-10 m. CW transmitter, serial # 1875, excellent overall condition, no modifications, fully functional. Cabinet (top & bottom) is mint, FP has one small scratch and one small blemish (paint looks thin), otherwise perfect. Knobs are mint. Unit has \*NEW\* electrolytic caps (two axial, one can), \*NEW\* RF indicator lamp, full set of \*NEW\* feet, all replaced with brand-new Drake factory parts. Repro manual, but it's complete with large schematic. Chassis cleaned, switches cleaned, aligned on all bands. Very nice Drake "collectible" but also ready to go on the air. \$95.00 plus \$10.00 shipping, or \*PACKAGE DEAL\* with MFJ-971 tuner (see below).

\*\*\* NON-BA ITEMS ALSO AVAILABLE \*\*\*

MFJ-971 Portable/QRP antenna tuner, like new, dual-needle meter, tunes dipoles, endfed, etc. 300/30/6 watt ranges. Works great with Drake 2-NT! \$70.00 plus \$5.00 shipping.

\*PACKAGE DEAL\*: Drake 2-NT and MFJ-971, \$160.00 \*INCLUDING\* shipping (save \$20.00), or pick up in northern VA for \$150.00.

Cushcraft 13B2 2-meter "Boomer" yagi antenna, \*brand new\* in the box. 13 elements on a 15-foot boom, manufacturer claims 15 dB gain, weighs 6 lbs (easily turned with a TV rotator), works great either horizontally (CW/SSB) or vertically (FM) polarized. Purchased about 3 months ago; box was opened to check contents, but nothing unpacked (hardware still sealed in the little baggie). \$75.00 plus \$10.00 shipping.

Paul, K4MSG                    e-mail: pbock@melpar.esys.com  
                                  work: (703) 560-5000 x2062  
                                  home: (703) 882-4745

From boatanchors@theporch.com Thu Oct 26 20:55:00 1995

From: Steve Ellington <n4lq@iglou.com>  
Subject: Re: Knight T-60  
Message-ID: <Pine.SOL.3.91.951026120239.29669D-100000@iglou>

> well try to restore my very first transmitter as well. My last attempt  
> at tryin the ol Knight resulted in a horrible chirpy signal. Figure it's  
> time for a few new parts. Wondering if anyone has access to a T-60

My last T-60 had a horrible chirpy signal too. Even usingthe xtal! Not  
sure what the problem was.

Steve Ellington N4LQ@IGLOU.COM Louisville, Ky

From boatanchors@theporch.com Thu Oct 26 20:55:00 1995  
From: berg stephen erik <z931086@oats.farm.niu.edu>  
Subject: Re: Knight T-60  
Message-ID: <Pine.SOL.3.91.951026115509.27644B-100000@oats>

My Knight T-60 worked great. I never received any chirp reports, but had a ball with it. The main problem that I had with it was the cheap ceramic disk capacitors in the final amplifier stage. They used to catch fire when the rig was used on 6 meters. I remember having to hurredly finish a transmission on 6 meter AM, because of the smoke wafting up out of the cabinet! I loaned it to a fellow ham, who "improved" the circuit for me without permission. I sadly had to scrap out the rig. It was hopelessly damaged. When it worked, it worked very well, and I had a great time with it.

73,

Steve WA9JML

From boatanchors@theporch.com Thu Oct 26 20:55:00 1995  
From: Steven Wilson <randyw@crl.com>  
Subject: Re: Knight T-60  
Message-ID: <Pine.SUN.3.91.951026100218.5680A-100000@crl7.crl.com>

Steve - Try tuning the osc stage such that you have slightly more capacity than required at resonance. Also look at your d.c. voltages to the osc stage. de stan ak0b

From boatanchors@theporch.com Thu Oct 26 20:55:00 1995  
From: pbock@melpar.esys.com (Paul H. Bock)  
Subject: Re: Knight T-60  
Message-ID: <9510261722.AA10372@syseng1.se.melpar.esys.com>

>Steve - Try tuning the osc stage such that you have slightly more capacity than required at resonance. Also look at your d.c. voltages to >the osc stage. de stan ak0b

Good advice. I always have to detune my single-tube 6V6 rig to prevent that "yooping" sound (or, as Gil drew it up in an old ARRL pub from the '50s, to prevent "chowpy-chowpit"). Regulating the oscillator plate & screen is a good idea, but it doesn't \*have\* to be done. And having a buffer stage doesn't always prevent it; my old Viking II (1962-65) had the same problem, requiring a slight detuning of the oscillator to get a chirp-free note.

73,

Paul, K4MSG

From boatanchors@theporch.com Thu Oct 26 15:46:00 1995  
From: w7ni@teleport.com (Stan Griffiths)  
Subject: Missed messages.  
Message-ID: <199510260755.AAA22903@desiree.teleport.com>

My computer hiccupped and I lost about 40 messages on Wednesday evening Oct 25 so if any of you sent me an e-mail then and I am ignoring it, send it again.

Stan W7NI@teleport.com

From boatanchors@theporch.com Thu Oct 26 20:55:00 1995  
From: haynes@cats.ucsc.edu (Jim Haynes)  
Subject: Museum wants W.E. WWII Field Phone  
Message-ID: <199510261719.KAA02116@hobbes.UCSC.EDU>

Reposted from History of Technology list

From sheldon@LIBRARY.MT.ATT.COM Wed Oct 25 05:09:38 1995  
Date: Wed, 25 Oct 1995 08:09:38 EDT  
Reply-To: History of Technology Discussion <HTECH-L@SIVM.BITNET>  
Sender: History of Technology Discussion <HTECH-L@SIVM.BITNET>  
From: Sheldon Hochheiser <sheldon@LIBRARY.MT.ATT.COM>  
Subject: WW II field telephone  
To: Multiple recipients of list HTECH-L <HTECH-L@SIVM.BITNET>

Dear H-Tech folks:

For an exhibit I am doing, I need to obtain a World War II Western Electric field telephone. I'm looking for sources where I might (ideally) buy or borrow one (on a long term loan).

I'd appreciate any suggestions, which can be sent directly to me at

sheldon@ library.mt.att.com

Thanks  
Sheldon Hochheiser  
AT&T Archives

From boatanchors@theporch.com Thu Oct 26 15:46:00 1995  
From: Michael.J.Knudsen@att.com  
Subject: Re: Need info: AN/URM-25D vs AN/URM-25F  
Message-ID: <9510251745.AA02740@bock.ih.att.com>

As a satisfied owner and user of a URM/25 (don't know the letter, if any; I paid a whopping \$95 but have got it back in performance), I'd be curious to know what sorts of accessories might come with one.

Mine is missing the lid, and the power cord has been permanently soldered in thru the hole in the front. From a little UHF mil gen I once had, I'd guess the original had a big bad socket in front for the AC cord.

Signal connectors are all straight BNC, hallelujah! So you can use any standard lab calbe with BNC on one end and clip leds on the other, or go straight into your radio's coax connectors. So don't worry if the official probes are missing.

I seem to remember the tubes all being normal civvy types, no 4-digit stuff or 26-volt heaters. What does Fair want for the goodie (and it is a goody)?  
73, mike k w9nrd

From boatanchors@theporch.com Thu Oct 26 15:46:00 1995  
From: w7ni@teleport.com (Stan Griffiths)  
Subject: Re: Offers v Asking Prices  
Message-ID: <199510260723.AAA17557@desiree.teleport.com>

I pretty much have to agree with Dave on this one. I have stuff in my possession that I really don't know what it is worth. There are others out there who do know and they can help me if they are willing to do it. (If they are not willing to help then I question their motivation and I don't much care what they think.)

If I have an idea what an item is worth, I will generally simply price it and wait for someone to come along and pay it. I am hesitant to guess at a price since I could really guess low, like 10% of its true value, and this would tend to make all offers hover around that price. I would really be shafting myself. For those of you who might say that since I didn't know what it was worth, I really didn't lose anything, I disagree. Put the shoe on the other foot and see how it feels when you get only 10% of the value of something you sold because someone took advantage of you.

I have offered several items for sale here by opening bids for a time period that allows for even the remote users of this list to participate. I have never yet refused to sell anything I have offered because the offers were too low, although I guess it could happen. I see no real harm done by someone refusing to accept too low an offer and I see no real harm done if someone refuses to make an offer if a minimum bid is not stated. The only problem I see is that it is much harder for the "opportunists to take advantage of a mark" and I am in favor of that.

Stan W7NI@teleport.com

Dave said:

>As I am apparently the guilty party who started this debate I feel obligated  
>to make a comment but do not wish to become involved in a debate on the  
subject.

>I agree with the sentiments expressed of course but find myself in an

>entirely different position. I am cleaning out my shack of a lifetimes'  
>accumulation as I am now too old to use or enjoy most of it. Many items are  
>unusual and in some cases rare and I really have no idea of the value. I  
>have depended on the honesty and good will of those participants in this BBS  
>and some news groups and have not been let down yet. I must continue to  
>offer unusual and rare items without price. I am sure those of you who are  
>interested will respond in spite of your principles of not responding to  
>unpriced items. If you don't respond then it is your loss not mine.  
>Regards  
>Dave  
>  
>  
>

From boatanchors@theporch.com Thu Oct 26 15:46:00 1995  
From: rmccarty@deltanet.com (Roger A. McCarty)  
Subject: Re: Offers vs Asking Prices  
Message-ID: <rmccarty.109.047204ED@deltanet.com>

In article jmartin@hrlban1.aircrew.asu.edu writes:

I agree whole heartedly with Jim's post. It is a matter of my personal unwavering policy to avoid all, "Make Offer" posts, regardless of how much I may want the item. Apparently, others on the list hold the same opinion. Perhaps that alone is enough to dissuade others from this practice?

Roger KD6CC

From boatanchors@theporch.com Thu Oct 26 15:46:00 1995  
From: Fire Bottle archive handler <firebotl@jackatak.theporch.com>  
Subject: Re: Offers vs Asking Prices  
Message-ID: <9510252233.aa13252@jackatak.theporch.com>

Gang-

We've probably beaten this subject about to death... and, there seems to be a consensus.

Personally, I have set a few pieces out for a best offer, and have accepted whatever came through, even if I might have liked to get more.

I have had loads of fun at HamFests without setting a price... Some one will ask: "Whadda ya want fer that?" and, I'll reply "make me an offer."

Invariably, the response comes back: "But, I don wanna insult ya..." and I respond: "You can't even come close. Try me!"

And, I \*always\* make good on the offer... even when someone offered \$1.00 for a NEW IN BOX tape recorder... and I took it! ;^)  
Started a "feeding frenzy" around my table and was fun.

As list owner and resident curmudgeon and herder of BA cats, I \*will\* not tell anyone how to sell or buy things... beyond suggesting that continuous "commercial" postings have a place elsewhere, but not on the BA list... offers are fine, and when someone makes one, I try to follow my "promise" and make good on it... if I had a reserve in mind, I would have said so... and I would encourage you all to do that.

I would MUCH rather that the BA list not degenerate into a mail version of rec.radio.swap, so let's limit the for sales to cleaning out the shack, the wanteds to things we need to finish an important project. and the discussions to equipment that uses firebottles... Leave the buying, selling, and marketing philosophy for /dev/null

--

73

Jack, W4PPT/Mobile (75M SSB 2-letter WAS #1657/#1789 -- both all mobile! ;^)  
- - - BoatAnchor Mailing List Archiver/Owner - - -

firebotl@jackatak.theporch.com ----- listown@jackatak.theporch.com

From boatanchors@theporch.com Thu Oct 26 20:55:00 1995

From: jmartin@hrlban1.aircrew.asu.edu

Subject: Old audio interstage xfmr problems

Message-ID: <SA39+1IvXka@hrlban1.alhra.af.mil>

In a recent post I read:

>> My best friend recently inherited a pair of (Westinghouse?)  
>> RA and DA broadcast receiving units from the early 20s. My dad  
>> (well versed with the old battery sets) did a quick ohmmeter check  
>> and discovered that both audio interstage 3:1 transformers were open.  
>....

>A few years ago I obtained a Atwater/Kent model 20 bdcst rcvr. It too  
>had open audio interstage transformers.

=====

The RA/DA was made by Westinghouse... the RA is the tuner and the DA is

the detector/amp... used three '01s (can use '01As). Elegant units, nice mahogany case; I've got one. A lot of the very old sets suffer from open audio xfmr's. I have a Radiola 3A with the same problem... just haven't gotten around to fixing it yet. My theory is that the tar or wax they used to pot the windings had a lot of sulphur in it. Maybe 'pot' isn't the best term, as the old xfmr makers usually simply poured hot tar over the windings and core in the can and let it set up, without bothering to put it in a chamber and pull a vacuum first to extract air and water vapor. Any traces of water vapor remaining in the windings eventually would react with the sulphur in the tar, and presto, weak sulphuric acid which slowly ate away the copper wire. A similar situation happened in the IF transformers in a Philco model 89 cathedral radio I got a couple years ago. It was dead, and after some tracing I eventually found that B+ was present on one terminal of the IF xfmr's but absent from the plates of the IF amp tubes. I pulled the xfmr cores out of the cans and looked at them closely; all that remained under the waxy coating were tiny greenish copper oxide (copper sulfate?) trails! Apparently the wax they had used to 'seal' the windings had a lot of sulphur in it. Replacement IFs weren't an option for something this old, so I ended up putting the coil forms under a microscope and counting the number of grooves in the wax where the turns once had been, then used a micrometer to gauge a short fragment of the wire which remained on one of the solder posts, and rewound the transformers by hand using new same-gauge wire (and no wax). After also replacing the filter caps, it played like a champ. As for audio xmfrs, AES sells new windings/cores which will fit inside the old cans in many cases, which can be an easier solution than rewinding the things. But no matter how one looks at it, it's a labor of love.

73, John Martin

jmartin@hrlban1.aircrew.asu.edu

From boatanchors@theporch.com Thu Oct 26 20:55:00 1995

From: "Gable, Edward M" <emg@rfpo2.rfc.comm.harris.com>

Subject: RE: Old audio interstage xfmr problems

Message-ID: <308FE17F@smtpgate.rfc.comm.harris.com>

...

>A few years ago I obtained a Atwater/Kent model 20 bdcst rcvr. It too  
>had open audio interstage transformers.

=====

>My theory is that the tar or wax they used to pot the windings had  
>a lot of sulphur in it.

<snip>

> Any traces of water vapor remaining in the windings  
>eventually would react with the sulphur in the tar, and presto,  
> weak sulphuric acid which slowly ate away the copper wire.

++++++

Hi John: I'm told acid core solder of the day had a lot to do with

wire failures at terminals. I, too, had to rewind a philco transformer that failed the same way. NOW, THAT's a labor of luv...

Ed K2MP @ Rochester. emg@rfc.comm.harris.com

.

From boatanchors@theporch.com Thu Oct 26 15:46:00 1995  
From: Robert Norman <RZ5630@WACCV.M.corp.mot.com>  
Subject: PARTS NEEDED  
Message-ID: <"RZ5630 95/10/26 15:33:39.788444"@WACCV.M.CORP.MOT.COM>

Gone are the days when you could go down to the local "radio" store and buy needed components right off the shelf. I sure miss those days. With that said, I have a shopping list of parts I sure hope you kind folks could help me with. The components are needed to build a receiver and transmitter as used by a novice class license holder back in the early fifties. What I need is:

Description	Part number	Qty
I.F. transformer 1500-1600kc range	Millen 64161	3
B.F.O. transformer 1500-1600kc range	Millen 65163	2
B & W mini-inductor	3015	1
B & W mini-inductor	3016	1
Plug-in coil forms	1 inch diam.	6
20 Henry 15ma choke		1
2.5 mh RF chokes with ceramic standoffs		4

Any help in obtaining these components would be greatly appreciated. This project is long overdue. Thanks again

73,

Bob ARS K7NWB

rz5630@waccvm.corp.mot.com

602-413-4508 work

602-833-7786 home

From boatanchors@theporch.com Thu Oct 26 15:46:00 1995  
From: Robert Norman <RZ5630@WACCV.M.corp.mot.com>  
Subject: PRO 310  
Message-ID: <"RZ5630 95/10/26 15:37:04.791269"@WACCV.M.CORP.MOT.COM>

-^^^^^^^^^^^^^^^^^ - ???

Sean,

Apparently I got your EMAIL address all messed up so I will try to get this to you via the list server. Please excuse the extra bandwidth folks.

I agree, "make offer" always makes me feel unsure about what to say. I figure if a guy can't be honest enough to directly state what he feels his equipment is worth, then move on. He obviously is on some kind of a fishing expedition. As far as your immediate problem is concerned, the PRO-310, you do have a good one there. The PRO-310 is a rare Hammarlund receiver and as such is highly desireable to collectors. We had one in the radio club I belonged to when I got my first ticket. The clubs call was W2GLO. Wayne Green was a member at that time. I remember him being a big proponent of RTTY and FM.

I myself also have a rare and highly collectable receiver in my collection, Hallacrafters SX-115, that gives me the same problem you have with the PRO-310. Great radio, nice to look at, but not used too much anymore. I sure would like to trade it off for someother radio, but how to set a value is a real problem. I think you have the obvious solution on trading. There are many radios I would like to get a chance to operate for a while, but an outright purchase is really beyond my budget. The "Collectors" have driven the prices into deep space. I have just recently seen a Collins KW1 for sale in the Yellow Sheets for \$25,000. Maybe what needs to be established, is a "Library Book" system. Where fellows who have "rare" radios would enjoy loaning the radios to others in exchange for the use of their "rare" radio for a while. In that fashion we could all get to play around with the "best of the breed." Well enough of my rambelings. If you ever decide to rid yourself of that "real poor excuse for a receiver, hi hi", keep me in mind. Maybe we could put some kind of a swap together.

73,

Bob ARS K7NWB

[rz5630@waccvm.corp.mot.com](mailto:rz5630@waccvm.corp.mot.com)

From boatanchors@theporch.com Thu Oct 26 20:55:00 1995

From: HAMRLUND@aol.com

Subject: Re: PRO 310

Message-ID: <951026122838\_77844665@mail02.mail.aol.com>

In a message dated 95-10-26 11:44:32 EDT, RZ5630@WACCVM.corp.mot.com (Robert Norman) writes:

>The PRO-310 is a rare Hammarlund

>receiver and as such is highly desireable to collectors.

the average value of this unit in mint condition ( 9.+ ) with matching speaker is \$650.00.

if it is less speaker, deduct \$125.00

if not in mint condition, deduct \$250.00

i.e. none mint , no speaker, value would be in the ballpark of \$300-\$400 again, the worse the condition, the less the value.

the other factor in play is, how bad someone wants it.

price will vary, as with the 75A4, priced as high as \$1,000. and as low as \$450.00

all depending on, condition & demand.

robert

From boatanchors@theporch.com Thu Oct 26 15:46:00 1995

From: w7ni@teleport.com (Stan Griffiths)

Subject: RCA vs BNC

Message-ID: <199510260755.AAA22908@desiree.teleport.com>

When I look in my box of RCA connectors, I see many different mounting schemes. Some are flange mounted with two screws or rivits and some are mounted in round holes with a nut.

Of this last type there seems to be two different sizes of mounting holes: 1/4 and 3/8 inches.

I have a bunch (probably 50) used but good BNC connectors that would bolt right in place of RCA connectors that use the 3/8 hole. These are just the thing for those of you who want to replace the RCA connector with a BNC but do not want to cut any metal to do it thus allowing you to reinstall the RCA at a later date if you so desire.

You can have these BNCs for 50 cents each plus \$2 shipping. Your personal check is ok.

Let me know how many you want so I can set them aside for you and turn off the crowd (if there is one).

Stan W7NI@teleport.com

From boatanchors@theporch.com Thu Oct 26 15:46:00 1995

From: Henry van Cleef <vancleef@bga.com>

Subject: Re: Reccomendations for test equipment

Message-ID: <199510260423.XAA16331@zoom.bga.com>

As Mark60195@aol.com said

>

> As a renewed collector of BA's and collector of old BC/SW radios  
> I find myself in serious need of a signal generator and scope to  
> perform some pretty basic alignment work. I'd appreciate any  
> recommendations for "cost effective" equipment of this nature. I  
> must admit to a preference to Heath equipment due to the  
> great documentation provided by the assembly manuals. Thanks!

>

If your objective is alignment of RF and IF sections of BC and HF  
radios, I suggest:

1. A good signal generator. The URM 25 has been suggested---I don't have one, but I don't recommend using the electronic junk I am using because I haven't hit on anything really decent. Heath generators are not accurate enough for serious work.
2. An inexpensive analog VTVM. I use an RCA WV97C VoltOhmyst. Any of the Heath AC/DC VTVM's is the approximate equivalent. I also use an HP412A DC VTVM---much more accurate and somewhat easier to use, but a bit slow in its response because it cuts off at about 5 Hz. I prefer it to the HP410 series because it doesn't have a special probe with a funny-munny toob in it. For measuring output a little more accurately I use an HP400D. You will want to buy some dummy load resistors so you can get accurate numbers.

I don't use a scope for alignment work. It may sound strange coming from someone who designed scopes for a living for a number of years, but an oscilloscope is not the first instrument I turn to for many things. Best use for a scope is to look at waveshapes and other qualitative work. For accurate voltages and currents, use a meter. For accurate frequency measurements, wavemeters, bench receivers, and frequency meters (i.e. calibrated oscillators to compare with) are much more accurate. Use your scope to get qualitative information, and ballpark voltage, current, and frequency estimates unless you are doing null measurements against known standards.

Having said all that, there are two brands of scopes: Tektronix and all the others. For price-performance, an old letter series scope can't be beat. My order of preference is 547, 546, 545V, 544, 543B, 533A, 543A, 533. Rationale: 547, etc. were last of the letter series, very well built and reliable, had 6CM vertical. 545B and 543B use the same CRT with a dirt-simple hybrid vertical amplifier. The 533A and 533 both have silicon rectifiers, and use dirt simple vertical amplifiers, but are only 15 Mhz. The 543A is 30 Mhz, but has a distributed amplifier (lotsa tubes that have to be matched pairs), only 4CM. 545A and 545A are excellent scopes, with two time bases---reason for not putting them up higher is the complexity of the second sweep circuit, which is not

particularly useful for RF. If you are doing pulse and digital work, pick the delaying sweep scopes against the scopes with 100X expansion. All of the 530/540 series, including the early ones, are excellent choices. I'd stay away from the 532 (the four cylinder version of the 531---low voltage CRT, no delay line) and the 536 (specialty scope for X-Y use, great for op amp work and lissajous figures). Also the 561A and almost any of the plug-ins starting with "3." These are 10 Mhz. scopes.

All of these can be had in "repairable" condition for next to nothing. If you want a clean-working-calibrated 547 or 545B, with suitable plug-ins, talk to Stan Griffiths. He'll want \$150-\$200, but you'll get a solid all-Tek box without problems to fix.

So far as Heath scopes, OS-8's, P4 synchrosopes, RCA and older DuMont scopes, why buy a toy when you can get the real thing? The only competitor for the 547 worth mentioning is the Fairchild-DuMont 766H, with its plug-ins. Note: 766H plug-ins do not work in Tek scopes. They are entirely different. So far as I know, the 766H's are orphans, full of New-vistors (ugh) and specialty semiconductors supplied by Fairchild Semiconductor for them. For more money, you can get a Tek 423, 454, or 465, 7600 series or later, all good scopes. Some of the HP scopes were reasonably good; some were real junk.

Heath was great value in the 50's and 60's. But with HP, Tektronix, GR, Boonton, Measurements, Marconi, and Guildline stuff available at prices closed to used Heath, why buy toys when you can get equipment that's at home in standards labs and that can be calibrated traceable to NIST (NBS) and mean something?

--

\*\*\*\*\*  
Hank van Cleef vancleef@bga.com vancleef@tmn.com  
\*\*\*\*\*

From boatanchors@theporch.com Thu Oct 26 20:55:00 1995  
From: Steve Ellington <n4lq@iglou.com>  
Subject: Re: Rent A Rare Radio  
Message-ID: <Pine.SOL.3.91.951026115321.29669B-100000@iglou>

> Maybe what needs to be established, is a "Library Book" system. Where  
> fellows who have "rare" radios would enjoy loaning the radios to others  
> in exchange for the use of their "rare" radio for a while. In that  
> fashion we could all get to play around with the "best of the breed."

HARK! Now this is an interesting idea. Who shall be the enterprizing ham to rent his radios? Could I rent someone's Collins equipment just long

enough to "get it out of my system"? Of course, certain rules would have to be followed and maybe a damage deposite made.

Steve Ellington N4LQ@IGLOU.COM Louisville, Ky

From boatanchors@theporch.com Thu Oct 26 20:55:00 1995  
From: Bill Standerfer <bills@hpislwes.lvld.hp.com>  
Subject: Re: Rent A Rare Radio  
Message-ID: <199510261614.AA275844050@relay.hp.com>

Steve Ellington N4LQ@IGLOU.COM Louisville, Ky wrote:  
>to rent his radios? Could I rent someone's Collins equipment just long  
>enough to "get it out of my system"? Of course, certain rules would have

Sorry Steve. Once Collins is in your system, you're likely to take it to the grave. ;-)

Bill

Bill Standerfer	*	Hewlett-Packard Company
CFI-A, IA, ME	*	Measurement Systems Division
bills@lvld.hp.com	*	Loveland, CO 80539
Baron N222AB - KF0DJ	*	970-679-2378

From boatanchors@theporch.com Thu Oct 26 20:55:00 1995  
From: bill.sorsby@dlepl.itg.ti.com (Bill Sorsby)  
Subject: Re: Rent A Rare Radio  
Message-ID: <199510261726.MAA05189@dlepl.itg.ti.com>

I like the "swap" system best. Only problem is that to really enjoy a radio I need to open it up and fiddle with the insides just a little.

Maybe this is not such a good idea after all... ;-)

Regards,  
Bill, N5BU

From boatanchors@theporch.com Thu Oct 26 15:46:00 1995  
From: Grant Youngman <gyoungma@gtetel.com>

Subject: RE: RX/TX relays  
Message-ID: <Chameleon.951025220938.gyoungma@gyoungma.gtetel.com>

On Wed, 25 Oct 1995 21:19:21 -0500 (CDT) Mark60195@aol.com wrote:  
>Would anyone know of a source for RX/TX relays (DOW key?) for  
>mating up a seperate receiver and transmitter? I havn't seen or  
>heard of these in ages.

> - Mark Lakomski  
> WB9PPL  
>

---

Grant Youngman -- NQ5T

WANTED: Hammarlund SPC-10

gyoungma@gtetel.com

---

From boatanchors@theporch.com Thu Oct 26 15:46:00 1995  
From: Grant Youngman <gyoungma@gtetel.com>  
Subject: RE: RX/TX relays  
Message-ID: <Chameleon.951025222122.gyoungma@gyoungma.gtetel.com>

On Wed, 25 Oct 1995 21:19:21 -0500 (CDT) Mark60195@aol.com wrote:  
>Would anyone know of a source for RX/TX relays (DOW key?) for  
>mating up a seperate receiver and transmitter? I havn't seen or  
>heard of these in ages.

> - Mark Lakomski  
> WB9PPL

Sorry about the preceeding null post :-( Doggone mouse ran off and I couldn't catch it ..

These are a fairly common hamfest item at around \$25. Henry Radio carries a line of Japanese relays that are supposed to be quite good (and quite high priced) -- but they look just like the Dow.

Also, I'm certain I've seen these listed new somewhere recently. Allied maybe? My catalog is at the office, so I can't double check tonight. But I noted interstellar prices when I saw them. Checked the new Newark catalog but didn't see anything listed.

-----  
Grant Youngman -- NQ5T

WANTED: Hammarlund SPC-10

gyoungma@gtetel.com

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From boatanchors@theporch.com Thu Oct 26 15:46:00 1995  
From: berg stephen erik <z931086@oats.farm.niu.edu>  
Subject: RE: RX/TX relays  
Message-ID: <Pine.SOL.3.91.951026001240.2304A-100000@oats>

Has anyone been able to get a data sheet and price list for the relays out of Henry Radio? I have called at least twice, in reference to their ads in WorldRadio, and have yet to receive anything. Don't they want to make a sale?

73,

Steve WA9JML

From boatanchors@theporch.com Thu Oct 26 15:46:00 1995  
From: "Gable, Edward M" <emg@rfpo2.rfc.comm.harris.com>  
Subject: RE: RX/TX relays  
Message-ID: <308F6E01@smtptime.rfc.comm.harris.com>

>Would anyone know of a source for RX/TX relays (DOW key?) for  
>mating up a seperate receiver and transmitter? I havn't seen or  
>heard of these in ages.  
> Mark Lakomski WB9PPL

Mark, I have several extra dowkey antenna relays. What do you need ? connector type and voltage ? SPST or DPST  
PLEASE PLEASE put address in text as many many of us receive messages with headers stripped off and there is no way to respond directly. 73,  
Ed K2MP @ Rochester  
emg@rfc.comm.harris.com

From boatanchors@theporch.com Thu Oct 26 15:46:00 1995

From: djw@unlinfo.unl.edu (Daniel Wright)  
Subject: RE: RX/TX relays  
Message-ID: <9510261521.AA08850@unlinfo2.unl.edu>

Speakin' of tx relays of Japaneese manufacture supposedly available from Henry Radio (I wish they were still in Butler,Mo.)

Steve sez:

>I have called at least twice, in reference to their  
>ads in WorldRadio, and have yet to receive anything. Don't they want to  
>make a sale?

Evidently not. I have had the same experience. Anyone have data and price on the jewels??

73 de Dan -- WA0JRD ..

From boatanchors@theporch.com Thu Oct 26 20:55:00 1995  
From: bill.sorsby@dlepl.itg.ti.com (Bill Sorsby)  
Subject: Salvage Value Prices  
Message-ID: <199510261707.MAA01470@dlepl.itg.ti.com>

Since I first subscribed to BoatAnchors no one's talked about salvage value pricing of "BoatAnchors". Commercial businesses can't make money dealing with the stuff. It's not economically justifiable. Has anybody seen a business dealing in BoatAnchors (other than as an out-of-the-garage operation)? Tucker's tried, but as I understand it, they're in receivership.

Most BoatAnchors are justifiably sold near salvage value. Whether \$10 or \$300 it's salvage value pricing. Some pristine equipment commands more, but very little seems to. At those prices it's not a matter of getting a "good" deal, it's more a matter of pride or bargaining just for the fun of bargaining.

Even if you get BoatAnchors for free (some people do), then fix em up and sell em, there's no money in it. Only justification for messing with em is cuz ya like to do it.

I, personally, seek out equipment at salvage value. I enjoy working on it. Am I taking advantage of anyone by paying salvage value prices? I don't think so. For instance, at a local hamfest two months ago I bought a pair of HT-37's for \$80. They didn't work. The guy selling em was a "collector" and he almost couldn't give em away. I got to the hamfest about 9:15 a.m., more than two hours after it opened. Plenty of other people had the opportunity to take "advantage" of him. Later I talked with another local "collector" who told me that there were quite a few "collectors" there who passed over these things. So, after a few hours work on each, they both

work fine now and if asking prices for working HT-37's is a guide, these are now worth several times what I paid for them. But their worth is still not much more than salvage value. Certainly not enough to justify the time spent finding and fixing the problems with em.

The individual I bought the HT-37's from knew perfectly well the value of them. He either didn't have the time, inclination or expertise to fix them up. Believe me, he puts "collector" prices on working equipment. Am I going to give up my day job to find fix and sell these things? Not a chance. I'd starve.

Another case in point, I recently bought a 20A for \$20. It suffers from severe cabinet rust. I almost couldn't get the chassis out of the cabinet because it was frozen in place with rust. I got it out only after first removing the front panel and prying the chassis loose from the cabinet. (Now if that \$5 cabinet I bought for it three weeks ago would just arrive... name of vendor withheld) Did I take advantage of someone by paying just \$20 for this 20A? I don't think so. Will it work again? I'm optimistic.

That's my final two cents on the subject. I mean it's just a hobby and there's a certain amount of satisfaction derived from resurrecting equipment others have long since abandoned.

Regards,  
Bill, N5BU

From boatanchors@theporch.com Thu Oct 26 20:55:00 1995  
From: Nick England <nick@cs.unc.edu>  
Subject: Shielded Grid Wire ??  
Message-ID: <199510261722.NAA13874@altair.cs.unc.edu>

Shielded Grid Cable ?? Anybody know where I can get some ? This is to replace some really crumbly stuff in a Johnson 500. I am talking about shielded (bare shield) cable typically called "grid wire" but in this case used to run 115 vac around to power switches and the like - shielded for TVI prevention reasons. Used to be Belden 8885 I think, but no longer available from them.

thanks  
Nick KD4CPL  
nick@c.unc.edu

From boatanchors@theporch.com Thu Oct 26 15:46:00 1995  
From: w7ni@teleport.com (Stan Griffiths)  
Subject: Re: Tektronix, Hickock, & Lavoie  
Message-ID: <199510260723.AAA17545@desiree.teleport.com>

> There's been a few posts here at BA Land mentioning the fact that the  
Hickock  
>scopes have a lot of parts that fit right into the Tektronix stuff. But what  
>about the Lavoie scopes? They sure LOOKED like Tektronix units. Maybe I'm  
>wrong....  
>  
>-Jim N6SVS  
>jcreid@ccgate.hac.com

Your're right, Jim. Lots of Lavoie scope parts fit Tek instruments and  
there is a third manufacturer that got into the business of copying Tek  
scopes, too: Jetronics. Lots of those parts fit, too.

There is a long and interesting story involving a 20-year-long lawsuit about  
copies of Tektronix instruments involving the three companies that copied  
Tektronix and the government that gave them permission to do it . . .

Stan W7NI@teleport.com

From boatanchors@theporch.com Thu Oct 26 20:55:00 1995  
From: David Adams <dave@flowserver.stem.com>  
Subject: Re: Tektronix, Hickock, & Lavoie  
Message-ID: <9510261715.AA00633@flowserver.stem.com>

So what's the deal with hickock equipment in general. I picked up  
a tubetester at Pacificon that seems rather nice. Should I rethink  
that stand?

Dave

From boatanchors@theporch.com Thu Oct 26 20:55:00 1995  
From: John Shriver <jas@shiva.com>  
Subject: Re: Tektronix, Hickock, & Lavoie  
Message-ID: <199510261801.0AA20379@shiva-dev.shiva.com>

Well, Hickock was the standard in tube testers. But, a tube tester  
isn't exactly a technically demanding circuit design. You're just  
testing the current gain of the tube at 60 Hz. About the only problem  
they had to cope with over the years was high mu tubes that wanted the

tube tester to be a VHF oscillator instead. (Ever try testing a 417A/5742 in a TV-7?)

The big quality difference was in build quality. Tube testers damn well better be built really rugged. You operate the switches a lot -- far more than on even an oscilloscope. I'd say that a Hickock tube tester is more rugged than a Tek scope -- and that's not an insult to the scope.

On the other hand, the scope is a matter of really brilliant circuit design, squeezing the ultimate out of recalcitrant parts. You had to make a scope, using current parts, that could be used to work on a state-of-the-art circuit built out of the same damn parts. (Those Ge transistor were "damn" parts in that case! Tek had to hand-pick them.) The number of patent numbers silkscreened on the Tek chassis is evidence of that genius. (Tek had triggering circuits particularly well patent-protected.)

However, Tek was selling equipment to circuit designers. You didn't see Tek scopes at many TV/Radio repair places. Nor did they advertize in Radio & Television News. The TV places had the DuMonts, the RCA's, the EICO, the Heathkit. Hickock primarily marketed to the repair trade: tube testers, TV alignment sweep oscillators, etc. The Hickock Tek-clone scope was a matter of going after the Uncle Sam gravy train, a departure from their normal TV/radio repair business. (Same sort of perversion as Helena Rubenstein making R-390/A's.)

There were other test equipment companies that marketed to circuit designers. Certainly Hewlett-Packard and GenRad were in that class. HP did make decent scopes, but they didn't put the amount of effort into it that Tek did, and many older HP scopes don't trigger worth a damn since they didn't license the Tek patents. HP is mostly noted for their RF stuff, some audio frequency stuff, and the meters.

GenRad did make a scope, in a wood box, with no deflection electronics, before Tek existed! GenRad's main specialty was the UHF stuff, with some interesting audio frequency stuff as well.

There were little specialists, like Ballantine (linear scale AC VTVM's). There was Boonton, HP bought them out.

Still, I can't think of any other brand of 1960's scope worth the trouble to keep working than Tek. They really had a monopoly then. On the other hand, HP and GenRad made equally nice audio oscillators, no (patent) monopoly there.

From: Bob Roehrig <broehrig@admin.aurora.edu>  
Subject: Re: Tektronix, Hickock, & Lavoie  
Message-ID: <Pine.ULT.3.91.951026135528.10380B-100000@admin.aurora.edu>

I have always sworn by Hickok tube testers. Back when I was in High school in the 50's, all the decent TV shops in town used Hickoks, and I still do. They will test tubes as old as the '01 types from the 1920's to 811-A and other types of transmitting tubes.

Bob, K9EUI

---

On Thu, 26 Oct 1995, David Adams wrote:

> So what's the deal with hickock equipment in general. I picked up  
> a tubetester at Pacificon that seems rather nice. Should I rethink  
> that stand?  
>  
> Dave  
>

From boatanchors@theporch.com Thu Oct 26 15:46:00 1995  
From: jproc@worldlinx.com  
Subject: RE: transformer question  
Message-ID: <Chameleon.4.01.2.951025224654.jproc@>

>If one winding is good for 10 amps and one good for 5, if I parallel  
>them is it then good for 15 amps, or do the current ratings have to  
>be equal in order to benefit from paralleled windings?

Bob,

You can parallel output windings of unequal current values and the total output current will be the sum of each winding assuming that the voltage outputs are identical. If the output voltages are different, then the output voltage in a parallel configuration will be the lower of the two.

I have actually paralleled windings in one power supply I built (12.6 VAC @ 1 amp + 12.6 VAC @ 2 amps = 12.6 VAC @ 3amps)

Regards,

---

Jerry Proc VE3FAB  
E-mail: jproc@worldlinx.com  
Radio Restoration Volunteer

HMCS Haida, Toronto Ontario

---

From boatanchors@theporch.com Thu Oct 26 15:46:00 1995  
From: clarke@next3.acme.ist.ucf.edu (Thomas Clarke)  
Subject: Re: Tube simulations - 1948  
Message-ID: <9410261437.AA19496@next3.acme.ist.ucf.edu>

>It consists of a very thin sheet of rubber stretched across a frame;  
the  
>hills and valleys in the rubber simulate electrical voltage and  
wooden  
>blocks act as tube elements. BB-shot sized bronze balls simulate  
electrons.  
  
> ... Measuring the time it takes for the ball to roll from one part  
of the table to another enables engineers to calculate the speed of  
actual  
> electrons in the tube (really? - mg).

I remember from some math course that the electrostatic field and  
and elastic sheet both obey the same equation (Poisson's ?,  
I think that's "fish" in French).

Thus a proper rubber sheet dealy should make an analog simulator  
for the field inside the tube, and the bb's should act more  
or less like electrons. Push the sheet up high where the voltage  
on electrodes is low, pull it down low when they are at high positive  
voltage. The BBs/electrons will then go from positive to negative.

I think a soap film also obeys Poisson's equation, but you couldn't  
roll BB's across a bubble.

I wonder if they could wiggle the sheet to simulate AC?

Tom Clarke  
KE4VFH

From boatanchors@theporch.com Thu Oct 26 20:55:00 1995  
From: "Robert M. Bratcher Jr." <bratcher@krypton.netropolis.net>

Subject: Wanted/For Sale Lists?  
Message-ID: <199510261207.MAA00963@krypton.netropolis.net>

I see these ads in the list but I thought they were available from the listproc BA index. Where do I find them?

Robert M. Bratcher Jr.  
E-mail to:  
[bratcher@netropolis.net](mailto:bratcher@netropolis.net)  
Beam me up Scotty!  
(I'm a real Star Trek fan)  
AND one heck of an old radio nut.  
Just love those tube type Boatanchors!